

[Name of Document] ABSTRACT

[Abstract]

[Object] To effectively reduce a friction torque on a sliding surface without damaging a sealing property even during an operation under high pressure, and when a sliding partner member is nonferrous metal such as aluminum alloy or the like, contributing to an improvement of fuel consumption of an automobile.

[Solving Means] This seal ring is one which seals operating oil hermetically and is attached to a seal ring groove provided on an outer circumference of a shaft member. The seal ring comprises: an inner ring circumferential surface; an outer ring circumferential surface; and a pair of side ring surfaces facing both sides thereof in an axial direction, wherein when oil pressure is applied to the seal ring, the outer ring circumferential surface is pressed against an inner circumferential surface of a housing freely fitted into the outer circumference of the shaft member relatively rotatably, and the side ring surface is pressed against a side surface of the seal ring groove, thus retaining the oil pressure. The seal ring further comprises: synthetic resin having a surface energy ranging

from +0 N/cm to  $20 \times 10^{-5}$  N/cm inclusive of that of the operating oil; and fluororesin containing modified fluororesin formed by being irradiated with an ionizing radiation in a range from 1 kGy to 10 MGy inclusive in a state of being heated up to a melting point thereof or higher under an inert gas atmosphere with an oxygen partial pressure of 1.33 kPa or less.

[Selected Figure] None